d) REMARKS

The claims are 1-5 with claim 1 the sole independent claim. Claim 1 has been amended to better define the intended invention and reconsideration of the claims is expressly requested.

Applicant affirms the provisional election with traverse of Group I, claims 1-4. Applicant also requests that claim 5 be rejoined under M.P.E.P. §821.04 upon the finding of allowable subject matter.

The Examiner had objected to the Abstract as having undue length. The Abstract has been amended so that it has less than 150 words and is less than 15 lines in length.

Applicant acknowledges that claim 3 would be deemed allowable if rewritten in independent form. Based on the amendments and arguments presented hereafter, it is believed that since claim 1 is allowable, that rewriting claim 3 is redundant.

Support for the amendment to claim 1 can be found as follows.

Page 4, line 13 through page 7, line 23 of the specification discloses that a domain wall is displaced to the peak position Xc of the temperature distribution and the recorded domain is expanded in the domain wall displacement layer. This means that magnetization of the domain wall displacement layer is present even at the peak temperature (i.e., the Curie temperature of the layer is higher than the peak temperature). Page 15, lines 24-27 of the specification teaches that the domain wall coercivity of the domain wall displacement layer is smaller than that of the recording layer. Page 16, lines

2-9 of the specification discloses that the domain wall is rigidly held to a position corresponding to the domain wall in the recording layer as a result of exchange coupling at a temperature lower than the Curie temperature of the switching layer. See also page 29, lines 14-27. Page 18, lines 22 and page 20, lines 7-21 teach that "anti-parallel" is synonymous with "opposite direction".

Claims 1, 2 and 4 were rejected as anticipated by Tamanoi '444 as evidenced by Applicant's alleged admissions, Ichihara '694 and Kaneko '275. The Examiner alleges that the domain wall displacement layer, switching layer and recording layer are coupled by exchange coupling at a temperature not higher than the Curie temperature of the switching layer as disclosed in Tamanoi column 32, lines 7-31. The Examiner also alleges that the limitation "saturation magnetization of the domain wall displacement layer and the recording layer are in opposite directions when coupled by exchange coupling at a temperature close to the Curie temperature of the switching layer" are found in Fig. 44 and Tables 15 and 16 of Tamanoi. The Examiner also relies on Table 12 of Tamanoi for disclosing a first magnetic domain wall displacement layer, a switching layer and a recording layer, allegedly meeting Applicant's claimed Curie temperature limitations. The grounds of rejection are respectfully traversed.

Prior to addressing the grounds of rejection Applicant wishes to briefly review certain key features and advantages of the present claimed invention.

Due to the claimed features of the present invention, the instant domain wall displacement type magneto-optical recording medium provides a sufficient domain wall displacing force from the start point of domain wall displacement and, therefore, can

produce a rectangular signal waveform with a greater amplitude and can suppress formation of jitters.

Tamanoi '444 merely discloses a magneto-optical recording medium of the magnetically-induced super resolution (MSR) type, not of the domain wall displacement type. Applicant has disclosed the defects of these MSR mediums on specification page 2, line 18 to page 3, line 27.

The Examiner has asserted that the second magnetic layer/the fifth magnetic layer/the sixth magnetic layer in Table 15, or the first magnetic layer/the second magnetic layer/the third magnetic layer in Table 12 of the Tamanoi '444 patent correspond to the domain wall displacement layer/the switching layer/the recording layer of the present invention. That allegation is not correct for the reasons which follow.

In the disk of Table 15 of the Tamanoi patent, the sixth magnetic layer (initializing layer) is a layer for initializing the magnetization of the fourth magnetic layer in one direction. Thus, the magnetization of the sixth magnetic layer is not transferred to the second magnetic layer. If the magnetization were transferred to the second magnetic layer, the magnetization of the third magnetic layer would also be initialized, in spite of the fact that the third magnetic layer is a layer for storing information. Hence, the optical disk of Table 15 could not record and reproduce information. Therefore, the second magnetic layer/the fifth magnetic layer/the sixth magnetic layer of Table 15 do not satisfy a key feature of the present claimed invention that the magnetization of the domain wall displacement layer corresponds to that of the recording layer.

In the disk of Table 12 of Tamanoi, both the third magnetic layer and the first magnetic layer contain Gd. Since the domain wall coercivity of a layer is substantially determined by the rare earth element(s) contained in the layer, the third magnetic layer will have substantially the same level of coercivity as the first magnetic layer. Therefore, the first magnetic layer/the second magnetic layer/the third magnetic layer of the disk of Table 12 do not satisfy a key feature of the present invention that the domain wall coercivity of the domain wall displacement layer is smaller than that of the recording layer.

Therefore, the Tamanoi patent discloses structures different in kind from that of the present claimed invention and cannot act as an anticipation.

On the other hand, Ichihara '694 and Kaneko '275 merely disclose optical disks having different functions from domain wall displacement type magneto-optical disks such as those of the present invention. Therefore, they do not remedy the defects of the '444 patent.

In the domain wall displacement type magneto-optical recording medium of Hirokane et al., U.S. Patent No. 6,150,038 ('038 patent) of record, the Curie temperature of the first magnetic layer causing domain wall displacement is lower than the peak temperature of the temperature distribution formed in the medium by irradiation with a light spot. Accordingly, magnetization of the first magnetic layer in the trailing area relative to the light spot disappears, whereby domain walls behind the light spot are prevented from entering the light spot area. Thus, the '038 patent differs from the present claimed invention in that the Curie temperature of the domain wall displacement layer is

lower than the peak temperature of the temperature distribution formed in the medium by irradiation with a light spot. This is a teaching directly opposite to the present invention.

In the '038 patent, the displacement of domain walls on the leading side of the light spot will stop at a point before the peak temperature position, due to the existence of the non-magnetized area around the peak temperature position. In the present claimed invention, domain wall displacement will reach the peak temperature position. Hence, recorded domains are larger in the present invention and reproduction signals are detected at a higher quality than in the '038 patent.

Wherefore, none of the references, whether considered alone or in combination, disclose or suggest the present claimed invention, nor render it unpatentable. Accordingly, it is respectfully requested that the claims be allowed and that the case be passed to issue.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

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